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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/000,072	12/04/2001	Akiko Nagae	1075.1184	8045
21171	7590	04/21/2005	EXAMINER	
STAAS & HALSEY LLP SUITE 700 1201 NEW YORK AVENUE, N.W. WASHINGTON, DC 20005			DANG, DUY M	
			ART UNIT	PAPER NUMBER
			2621	

DATE MAILED: 04/21/2005

Please find below and/or attached an Office communication concerning this application or proceeding.

**Office Action Summary**

Application No.

10/000,072

Applicant(s)

NAGAE ET AL.

Examiner

Duy M Dang

Art Unit

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

**Period for Reply**

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

**Status**

- 1) ☐ Responsive to communication(s) filed on 04 December 2001 and 22 February 2005.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

**Disposition of Claims**

- 4) ☒ Claim(s) 1-61 is/are pending in the application.
- 4a) Of the above claim(s) 38-41 is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 1-4, 16, 17, 21-23, 28-31, 37, 42, 43, 48, 49, 52, 53, 58 and 59 is/are rejected.
- 7) ☒ Claim(s) 5-15, 18-20, 24-27, 32-36, 44-47, 50, 51, 54-57, 60 and 61 is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

**Application Papers**

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 04 December 2001 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

**Priority under 35 U.S.C. § 119**

- 12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).  
a) ☒ All b) ☐ Some \* c) ☐ None of:
1. ☒ Certified copies of the priority documents have been received.
  2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
  3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

**Attachment(s)**

- |   |   |
|---|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892)   | 4) <input type="checkbox"/> Interview Summary (PTO-413)<br>Paper No(s)/Mail Date. _____ |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948)  | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152)             |
| 3) <input checked="" type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)<br>Paper No(s)/Mail Date <u>12/04/01</u> . | 6) <input type="checkbox"/> Other: _____  |

### DETAILED ACTION

1. Applicant's election without traverse of Group I Invention ,claims 1-37, and 42-60 in the reply filed on February 22, 2005 is acknowledged.

Claims 38-41 are withdrawn from further consideration pursuant to 37 CFR 1.142(b) as being drawn to a nonelected Group II invention, there being no allowable generic or linking claim. Election was made **without** traverse in the reply filed on February 22, 2005.

Applicant's official amendment to cancel claims 38-41 is advised to in response to this communication.

2. Claims 20 and 29 and are objected to because of the following informalities:  
"saidmethod" recited in line 2 of each claims 20 and 29. Appropriate correction is required.

3. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

4. Claims 1-4, 16-17, 21-23, 28-31, 37, 42-43, 48-49, ,52-53, and 58-59 are rejected under 35 U.S.C. 103(a) as being unpatentable over Applicant's admitted prior art [see pages 1-5 of the specification. Referred as the AAPA hereinafter] in view of Kerz [US Patent No. 6,687,021].

Regarding claims 1-2, 21-22, 29-30, and 42, ,the AAPA teaches:

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(a) creating a basic pattern shape of the prospective binary-coding pattern by a first arithmetic operation [see lines 11-13 of page 2 and the arithmetic operations mentioned in lines 11-12 of page 4];

(b) determining the sequence of lighting pixels composing such basic pattern by a second arithmetic operation [see lines 5-10 of page 5 and the arithmetic operations mentioned in lines 11-12 of page 4].

The AAPA fails to explicitly teach creating a rectangular pattern, which serves as the prospective binary-coding pattern, based on the resultant basic pattern. However, such features are well known in the art as evidenced by Kerz [see figures 1-3. Note that this interpretation is consistent with Applicant's disclosed figure 5].

Therefore, it would have been obvious to one of ordinary skill in the art at the time the invention was made to incorporate the features taught by Kerz in combination with the AAPA in order to allow high reproduction quality, less memory space usage, and a fast and simple realization in hardware as suggested by Kerz in col. 2 line 65 to col. 3 line 25.

Regarding claims 52-53, it is noted these claims recites a computer-readable medium having program stored therein for carrying out the similar features called for in claims 1-2. Thus, the advanced statement as applied to claims 1-2 above are incorporated herein. Kerz further teaches program [see software mentioned in col. 3 line 15].

Regarding claims 3-4, 23, 31, and 43, Kerz further teaches these claimed features [see figures 1-3. For example, a pattern comprising rp0-rp8 has an angle relative to x direction; each of rp0-rp8 comprising 8x8 pixels; and the pattern comprising rp0-rp8 is formed based on the angle and 9 8x8 pixels].

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Regarding claims 16-17, 28, 37, 48-49, and 58-59, Kerz further teaches these claimed features [see figures 1-3. In figure 1, for example, pattern comprising rp0-rp8 refers to rectangular pattern as recited in claim 16, and also the so called "motif-pattern" as recited in claim 17].

5. Claims 5-15, 18-20, 24-27, 32-36, 44-47, 50-51, 54-57, and 60-61, and are objected to as being dependent upon a rejected base claim, but would be allowable if rewritten in independent form including all of the limitations of the base claim and any intervening claims.

6. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure.

The examples of pattern generation are Wang [US Patent No. 5,859,955], Dewitte [US Patent No. 6,532,082], and Shu [US Patent No. 5,757,976].

7. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Duy M Dang whose telephone number is 571-272-7389. The examiner can normally be reached on Monday to Friday from 6:30AM to 3:00PM.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Bhavesh Mehta can be reached on 571-272-7453. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

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Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

dmd  
4/2005

A handwritten signature in black ink, appearing to read "Duy M. Dang".

Duy M. Dang  
Patent Examiner